Remarks

This Application has been carefully reviewed in light of the Office Action mailed January 23, 2003. Applicant believes all original claims are allowable over the prior art of record without amendment and presents the following remarks in support. Applicant has made non-substantive amendments to Claims 2-8, 10-12, 14-18, and 20-22. Applicant has added new Claims 23-56, all of which are fully supported by the specification as originally filed. No new matter has been added. None of these changes are considered necessary for patentability. Applicant respectfully requests reconsideration and allowance of all pending claims.

The Claims are Allowable over *Biliris* and *Chow*

The Examiner rejects Claims 1-22 under 35 U.S.C. § 103(a) as being unpatentable over U.S. 2002/0059380 to Biliris et al. (*"Biliris"*) and further in view of U.S. Patent 6,226,693 to Chow et al. (*"Chow"*). Applicant respectfully disagrees.

Biliris merely discloses an event manager that mediates between event suppliers and event consumers so that suppliers need not be aware of their consumers and consumers need not be aware of their suppliers. (Abstract; Figure 3; Page 2 ¶¶ 0011-0012; Page 3, ¶¶ 0045, 0047-0048) *Biliris* contains absolutely no mention of logical events as opposed to physical events and contains no disclosure, teaching, or suggestion whatsoever of a logical event manager operating in cooperation with a separate physical event manager as recited in independent Claim 1. As clearly illustrated in Figure 3, the event manager disclosed in *Biliris* includes a single event dispatcher to mediate between event suppliers and event consumers.

As the Examiner acknowledges, *Biliris* fails to disclose a physical event manager that comprises "a first mapper operable to translate between the logical event manager and the first event producer-consumer" and "a second mapper operable to translate between the logical event manager and the second event producer-consumer" as recited in independent Claim 1. Not only does *Biliris* fail to disclose, teach, or suggest separate first and second mappers within the physical event manager for separate first and second event producer-consumers as recited in independent Claim 1, but *Biliris* fails even to disclose, teach, or

suggest a logical event manager for which the separate first and second mappers are operable to translate.

Accordingly, *Biliris* is wholly inadequate as a reference against independent Claim 1.

Chow discloses an event manager using a mapping table to map platform dependent physical events to logical events to allow platform independent callbacks. (Figure 7; Column 6, Lines 50-57; Column 7, Lines 5-8; Column 7, Line 62 – Column 8, Line 46) However, *Chow* contains no disclosure, teaching, or suggestion of a logical event manager operating in cooperation with a separate physical event manager as recited in independent Claim 1. *Chow* also fails to disclose, teach, or suggest a physical event manager, in communication with but separate from a logical event manager, that comprises "a first mapper operable to translate between the logical event manager and the first event producer-consumer" and "a second mapper operable to translate between the logical event manager and the second event producer-consumer" as recited in independent Claim 1. As clearly illustrated in Figure 7, *Chow* merely discloses a single event manager that maps physical events to logical events.

Accordingly, *Chow* is also inadequate as a reference against independent Claim 1. Thus, even assuming for the sake of argument that there was the required suggestion or motivation to combine *Biliris* with *Chow* as the Examiner proposes, the proposed *Biliris-Chow* combination would still fail to disclose, teach, or suggest the limitations specifically recited in independent Claim 1.

Applicant respectfully requests reconsideration and allowance of independent Claim 1, together with all of its dependent claims. Independent Claims 9, 13, and 19 recite certain limitations similar to those recited in independent Claim 1 with respect to the cooperative operation of the physical event manager, including its mappers, and the logical event manager.[1] Accordingly, Applicant respectfully requests reconsideration and allowance of independent Claims 9, 13, and 19, together with all of their dependent claims.

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[1] Applicant does not necessarily agree with the Examiner's statement that Claims 12-13, 18-19, and 22 "have the same limitations" as Claim 1. (Office Action, Page 4)

New Claim 23-56 have been added. New Claims 23, 34, 45, and 56 are independent claims and each recite certain substantially similar limitations. New independent Claims 23, 34, 45, and 56 are allowable for at least the same reasons discussed above. Furthermore, regardless of the above discussion, neither *Biliris, Chow,* nor their proposed combination in any way discloses, teaches, or suggests the particular limitations specifically recited in new independent Claims 23, 34, 45, and 56. Accordingly, Applicant respectfully requests consideration and allowance of new independent Claims 23, 34, 45, and 56, together with all of their dependent claims.

Conclusion

Applicant has made an earnest attempt to place this case in condition for allowance. For at least the foregoing reasons, Applicant respectfully requests full allowance of all pending claims.

If the Examiner believes a telephone conference would advance prosecution of this case in any way, the Examiner is invited to contact Christopher W. Kennerly, the Attorney for Applicant, at the Examiner's convenience at (214) 953-6812.

A check for $948.00 is attached to cover the cost of 4 additional independent claims and 34 additional claims total. Although Applicant believes no other fees are due, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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Appendix A
Mark-Ups Reflecting Changes to the Claims

1.   A system for managing event publication and subscription of event producer-consumers, the system comprising:

a logical event manager; and

a physical event manager in communication with the logical event manager and a first and a second event producer-consumer, wherein the physical event manager comprises:

a first mapper operable to translate between the logical event manager and the first event producer-consumer; and

a second mapper operable to translate between the logical event manager and the second event producer-consumer.

2.   (Amended) The system of Claim 1, further comprising a listener-sender having the first mapper and in communication with the logical event manager and the first and the second event producer-consumer.

3.   (Amended) The system of Claim 1, wherein the first mapper is operable to translate a signal occurring at the first producer-consumer to a logical event for the logical event manager.

4.   (Amended) The system of Claim 1, wherein the first mapper is operable to translate a logical event occurring at the logical event manager to a signal for the first producer-consumer.

5.   (Amended) The system of Claim 1, wherein the first event consumer-producer is operable to subscribe to a logical event managed by the logical event manager.

6.   (Amended) The system of Claim 1, wherein the logical event manager is operable to publish a signal to the first event consumer-producer.

7.   (Amended) The system of Claim 1, wherein the first event consumer-producer is operable to communicate a signal to the logical event manager.

8.   **(Amended)** The system of Claim 1, wherein the physical event manager is operable to monitor the first producer-consumer for a signal.

9.   A method for managing event publication and subscription of event producer-consumers, the method comprising:

receiving a logical event from an event producer by a logical event manager;

communicating the logical event from the logical event manager to a physical event manager;

translating the logical event to a first signal by the physical event manager using a first mapper;

translating the logical event to a second signal by the physical event manager using a second mapper;

publishing the first signal to a first event consumer; and

publishing the second signal to a second event consumer.

10.   (Amended) The method of Claim 9, further comprising communicating a subscription for a logical event from the first event consumer to the physical event manager.

11.   (Amended) The method of Claim 9, further comprising:

communicating a first subscription for a logical event from the first event consumer to the physical event manager; and

translating the first subscription into a first logical subscription using the first mapper.

12.   (Amended) The method of Claim 9, further comprising instantiating the physical event manager by establishing the first mapper and the second mapper, wherein the first mapper is associated with the logical event and the first consumer and the second mapper is associated with the logical event and the second consumer.

13.   A method for managing event publication and subscription of event producer-consumers, the method comprising:

receiving a first signal from a first event producer by a physical event manager;

receiving a second signal from a second event producer by the physical event manager;

translating the first signal to a first logical event using a first mapper;

translating the second signal to a second logical event using a second mapper;

communicating the first logical event to a logical event manager; and

communicating the second logical event to the logical event manager.

14.   (Amended) The method of Claim 13, further comprising communicating a subscription for the first logical event from a first event consumer to the physical event manager.

15.   (Amended) The method of Claim 13, further comprising:

communicating a first subscription for a logical event from the first event consumer to the physical event manager; and

translating the first subscription into a first logical subscription using the first mapper.

16.   (Amended) The method of Claim 13, further comprising communicating the first logical event from the logical event manager to a first event consumer.

17.   (Amended) The method of Claim 13, further comprising monitoring the first event producer for the first signal.

18.   (Amended) The method of Claim 13, further comprising instantiating the physical event manager by establishing the first mapper, wherein the first mapper is associated with the first logical event and the first event producer.

19.   A method for managing event publication and subscription of event producer-consumers, the method comprising:

receiving a first signal from an event producer by a physical event manager;

translating the first signal to a logical event using a first mapper;

communicating the logical event to a logical event manager;

communicating the logical event to the physical event manager;

translating the logical event to second signal using the second mapper; and

communicating the second signal to an event consumer.

20.   **(Amended)** The method of Claim 19, further comprising communicating a subscription for the logical event from the event consumer to the physical event manager.

21.   **(Amended)** The method of Claim 19, further comprising monitoring the event producer for the first signal.

22.   **(Amended)** The method of Claim 19, further comprising instantiating the physical event manager by establishing the first mapper, wherein the first mapper is associated with the logical event and the event producer.

23.   (New) A system for managing event publication and subscription for event producer-consumers, comprising:

a logical event manager; and

a physical event manager in communication with the logical event manager and with a plurality of event producer-consumers;

the physical event manager comprising a plurality of mappers each corresponding to a particular type of event producer-consumer and operable to:

for incoming physical events:

receive a particular type of signal indicative of a physical event from the corresponding particular type of event producer-consumer;

translate the particular type of signal received from the corresponding particular type of event producer-consumer into a logical event for communication to the logical event manager;

for outgoing physical events:

receive a logical event from the logical event manager;

translate the logical event received from the logical event manager into a particular type of signal indicative of a physical event for communication to the corresponding particular type of event producer-consumer.

24.   (New) The system of Claim 23, wherein the physical event manager is operable use the mappers to translate a single logical event into:

a first particular type of signal for communication to a corresponding first particular type of event producer-consumer; and

a second particular type of signal for communication to a corresponding second particular type of event producer-consumer.

25.   (New) The system of Claim 24, further comprising one or more listener-senders each comprising one or more mappers, each listener-sender monitoring the one or more event producer-consumers corresponding to the one or more mappers of the listener-sender.

26.   (New) The system of Claim 24, wherein the logical event manager is operable to allow each event consumer-producer to subscribe to one or more logical events managed by the logical event manager.

27.   (New) The system of Claim 26, wherein the logical event manager is further operable to publish a logical event for communication to each event consumer-producer that has subscribed to the logical event, for each event producer-consumer that has subscribed to the logical event the logical event being translated using the corresponding mapper and communicated in the form of the corresponding particular type of signal.

28.   (New) The system of Claim 24, wherein:

the system allows for heterogeneous event exchange among a plurality of event producer-consumers each supporting a different native protocol for communicating signals indicative of physical events;

no event producer-consumer needs to have knowledge of any other event producer-consumer for event exchange with the other event producer-consumer; and

no event producer-consumer needs to have knowledge of the native protocol for any other event producer-consumer for event exchange with the other event producer-consumer.

29.   (New) The system of Claim 24, wherein:

the event producer-consumers are external event producer-consumers;

the logical event manager is in communication with a plurality of internal event-producer-consumers; and

the logical event manager is further operable to:

for incoming physical events, communicate the logical event to one or more internal event-producer-consumers;

for outgoing physical events, receive the logical event from an internal event-producer-consumer.

30.   (New) The system of Claim 24, wherein:

a first event-producer-consumer comprises a first machine with a corresponding first mapper within the physical event manager and a corresponding first native protocol for communicating signals with the physical event manager;

a second event-producer-consumer comprises a second machine with a corresponding second mapper within the physical event manager and a corresponding second native protocol for communicating signals with the physical event manager; and

the physical event manager is operable to:

receive from the first machine a first signal in the first native protocol indicative of a physical event associated with the first machine;

use a first mapper corresponding to the first machine to translate the first signal received from the first machine in the first native protocol into a start machine logical event for communication to the logical event manager; and

use a second mapper corresponding to the second machine to translate the start machine logical event received from the logical event manager into a second signal in the second native protocol indicative of the start machine logical event for communication to the second machine, the second machine operable to start in response to receiving the second signal.

31.   (New) The system of Claim 30, wherein the first and second native protocols are different protocols.

32.   (New) The system of Claim 24, wherein:

a first event-producer-consumer comprises a first data store with a corresponding first mapper within the physical event manager and a corresponding first native protocol for communicating signals with the physical event manager;

a second event-producer-consumer comprises a second data store with a corresponding second mapper within the physical event manager and a corresponding second native protocol for communicating signals with the physical event manager; and

the physical event manager is operable to:

receive from the first data store a first signal in the first native protocol indicative of a physical event associated with the first data store;

use a first mapper corresponding to the first data store to translate the first signal received from the first data store in the first native protocol into a store data logical event for communication to the logical event manager; and

use a second mapper corresponding to the second data store to translate the store data logical event received from the logical event manager into a second signal in the second native protocol indicative of the store data logical event for communication to the second data store, the second machine operable to store data in response to receiving the second signal.

33.   (New) The system of Claim 32, wherein the first and second native protocols are different protocols.

34.	(New) A method for managing event publication and subscription for event producer-consumers, comprising:

establishing communication between a physical event manager and a logical event manager;

establishing communication between the physical event manager and a plurality of event producer-consumers; and

using a plurality of mappers within the physical event manager, each corresponding to a particular type of event producer-consumer and operable to:

for incoming physical events:

receive a particular type of signal indicative of a physical event from the corresponding particular type of event producer-consumer;

translate the particular type of signal received from the corresponding particular type of event producer-consumer into a logical event for communication to the logical event manager;

for outgoing physical events:

receive a logical event from the logical event manager;

translate the logical event received from the logical event manager into a particular type of signal indicative of a physical event for communication to the corresponding particular type of event producer-consumer.

35.	(New) The system of Claim 34, further comprising using the mappers of the physical event manager to translate a single logical event into:

a first particular type of signal for communication to a corresponding first particular type of event producer-consumer; and

a second particular type of signal for communication to a corresponding second particular type of event producer-consumer.

36.	(New) The method of Claim 34, further comprising using one or more listener-senders each comprising one or more mappers, each listener-sender monitoring the one or more event producer-consumers corresponding to the one or more mappers of the listener-sender.

37.   (New) The method of Claim 34, further comprising using the logical event manager to allow each event consumer-producer to subscribe to one or more logical events managed by the logical event manager.

38.   (New) The method of Claim 37, further comprising using the logical event manager to publish a logical event for communication to each event consumer-producer that has subscribed to the logical event, for each event producer-consumer that has subscribed to the logical event the logical event being translated using the corresponding mapper and communicated in the form of the corresponding particular type of signal.

39.   (New) The method of Claim 34, wherein:

the method allows for heterogeneous event exchange among a plurality of event producer-consumers each supporting a different native protocol for communicating signals indicative of physical events;

no event producer-consumer needs to have knowledge of any other event producer-consumer for event exchange with the other event producer-consumer; and

no event producer-consumer needs to have knowledge of the native protocol for any other event producer-consumer for event exchange with the other event producer-consumer.

40.   (New) The method of Claim 34, wherein:

the event producer-consumers are external event producer-consumers;

the logical event manager is in communication with a plurality of internal event-producer-consumers; and

the method further comprises using the logical event manager to:

for incoming physical events, communicate the logical event to one or more internal event-producer-consumers;

for outgoing physical events, receive the logical event from an internal event-producer-consumer.

41.   (New) The method of Claim 34, wherein:

a first event-producer-consumer comprises a first machine with a corresponding first mapper within the physical event manager and a corresponding first native protocol for communicating signals with the physical event manager;

a second event-producer-consumer comprises a second machine with a corresponding second mapper within the physical event manager and a corresponding second native protocol for communicating signals with the physical event manager; and

the method further comprises using the physical event manager to:

receive from the first machine a first signal in the first native protocol indicative of a physical event associated with the first machine;

use a first mapper corresponding to the first machine to translate the first signal received from the first machine in the first native protocol into a start machine logical event for communication to the logical event manager; and

use a second mapper corresponding to the second machine to translate the start machine logical event received from the logical event manager into a second signal in the second native protocol indicative of the start machine logical event for communication to the second machine, the second machine operable to start in response to receiving the second signal.

42.   (New) The method of Claim 41, wherein the first and second native protocols are different protocols.

43.   (New) The method of Claim 34, wherein:

a first event-producer-consumer comprises a first data store with a corresponding first mapper within the physical event manager and a corresponding first native protocol for communicating signals with the physical event manager;

a second event-producer-consumer comprises a second data store with a corresponding second mapper within the physical event manager and a corresponding second native protocol for communicating signals with the physical event manager; and

the method further comprises using the physical event manager to:

receive from the first data store a first signal in the first native protocol indicative of a physical event associated with the first data store;

use a first mapper corresponding to the first data store to translate the first signal received from the first data store in the first native protocol into a store data logical event for communication to the logical event manager; and

use a second mapper corresponding to the second data store to translate the store data logical event received from the logical event manager into a second signal in the second native protocol indicative of the store data logical event for communication to the second data store, the second machine operable to store data in response to receiving the second signal.

44.   **(New)** The method of Claim 43, wherein the first and second native protocols are different protocols.

45.   (New) Software for managing event publication and subscription for event producer-consumers, the software embodied in computer-readable media and when executed operable to:

establish communication between a physical event manager and a logical event manager;

establish communication between the physical event manager and a plurality of event producer-consumers; and

use a plurality of mappers within the physical event manager, each corresponding to a particular type of event producer-consumer and operable to:

for incoming physical events:

receive a particular type of signal indicative of a physical event from the corresponding particular type of event producer-consumer;

translate the particular type of signal received from the corresponding particular type of event producer-consumer into a logical event for communication to the logical event manager;

for outgoing physical events:

receive a logical event from the logical event manager;

translate the logical event received from the logical event manager into a particular type of signal indicative of a physical event for communication to the corresponding particular type of event producer-consumer.

46.   (New) The software of Claim 45, further operable to use the mappers of the physical event manager to translate a single logical event into:

a first particular type of signal for communication to a corresponding first particular type of event producer-consumer; and

a second particular type of signal for communication to a corresponding second particular type of event producer-consumer.

47.   (New) The software of Claim 45, further operable to use one or more listener-senders each comprising one or more mappers, each listener-sender monitoring the one or more event producer-consumers corresponding to the one or more mappers of the listener-sender.

48. (New) The software of Claim 45, further operable to use the logical event manager to allow each event consumer-producer to subscribe to one or more logical events managed by the logical event manager.

49. (New) The software of Claim 48, further operable to use the logical event manager to publish a logical event for communication to each event consumer-producer that has subscribed to the logical event, for each event producer-consumer that has subscribed to the logical event the logical event being translated using the corresponding mapper and communicated in the form of the corresponding particular type of signal.

50. (New) The software of Claim 45, wherein:

the software allows for heterogeneous event exchange among a plurality of event producer-consumers each supporting a different native protocol for communicating signals indicative of physical events;

no event producer-consumer needs to have knowledge of any other event producer-consumer for event exchange with the other event producer-consumer; and

no event producer-consumer needs to have knowledge of the native protocol for any other event producer-consumer for event exchange with the other event producer-consumer.

51. (New) The software of Claim 45, wherein:

the event producer-consumers are external event producer-consumers;

the logical event manager is in communication with a plurality of internal event-producer-consumers; and

the software is further operable to use the logical event manager to:

for incoming physical events, communicate the logical event to one or more internal event-producer-consumers;

for outgoing physical events, receive the logical event from an internal event-producer-consumer.

52.   (New) The software of Claim 45, wherein:

a first event-producer-consumer comprises a first machine with a corresponding first mapper within the physical event manager and a corresponding first native protocol for communicating signals with the physical event manager;

a second event-producer-consumer comprises a second machine with a corresponding second mapper within the physical event manager and a corresponding second native protocol for communicating signals with the physical event manager; and

the software is further operable to use the physical event manager to:

receive from the first machine a first signal in the first native protocol indicative of a physical event associated with the first machine;

use a first mapper corresponding to the first machine to translate the first signal received from the first machine in the first native protocol into a start machine logical event for communication to the logical event manager; and

use a second mapper corresponding to the second machine to translate the start machine logical event received from the logical event manager into a second signal in the second native protocol indicative of the start machine logical event for communication to the second machine, the second machine operable to start in response to receiving the second signal.

53.   (New) The software of Claim 52, wherein the first and second native protocols are different protocols.

54.   (New) The software of Claim 45, wherein:

a first event-producer-consumer comprises a first data store with a corresponding first mapper within the physical event manager and a corresponding first native protocol for communicating signals with the physical event manager;

a second event-producer-consumer comprises a second data store with a corresponding second mapper within the physical event manager and a corresponding second native protocol for communicating signals with the physical event manager; and

the software is further operable to use the physical event manager to:

receive from the first data store a first signal in the first native protocol indicative of a physical event associated with the first data store;

use a first mapper corresponding to the first data store to translate the first signal received from the first data store in the first native protocol into a store data logical event for communication to the logical event manager; and

use a second mapper corresponding to the second data store to translate the store data logical event received from the logical event manager into a second signal in the second native protocol indicative of the store data logical event for communication to the second data store, the second machine operable to store data in response to receiving the second signal.

55.   (New) The software of Claim 54, wherein the first and second native protocols are different protocols.

56.   (New) A system for managing event publication and subscription for event producer-consumers, comprising:

first means for receiving and communicating logical events; and

second means, in communication with the first means and with a plurality of event producer-consumers, for translating signals received from event producer-consumers into logical events for communication to the first means and for translating logical events received from the first means into signals for communication event producer-consumers;

the second means comprising a plurality of mapping means each corresponding to a particular type of event producer-consumer and each for:

for incoming physical events:

receiving a particular type of signal indicative of a physical event from the corresponding particular type of event producer-consumer;

translating the particular type of signal received from the corresponding particular type of event producer-consumer into a logical event for communication to the first means;

for outgoing physical events:

receiving a logical event from the first means;

translating the logical event received from the first means into a particular type of signal indicative of a physical event for communication to the corresponding particular type of event producer-consumer.